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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/708,514	11/09/2000	Tsuyoshi Kitahara	Q61721	1708

7590 05/21/2003  
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Washington, DC 20037-3213

EXAMINER

NGUYEN, JUDY

ART UNIT PAPER NUMBER

2861

DATE MAILED: 05/21/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

**Office Action Summary**

Application No.

09/708,514

Applicant(s)

KITAHARA, TSUYOSHI

Examiner

Judy Nguyen

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 04 March 2003.
- 2a) ☒ This action is FINAL. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1 and 3-54 is/are pending in the application.
- 4a) Of the above claim(s) 5, 6 and 8-53 is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1, 3, 4, 7 and 54 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☒ The proposed drawing correction filed on 04 March 2003 is: a) ☒ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

**Priority under 35 U.S.C. §§ 119 and 120**

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

**Attachment(s)**

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) \_\_\_\_\_
- 4) ☐ Interview Summary (PTO-413) Paper No(s): \_\_\_\_\_
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other:

## **DETAILED ACTION**

### ***Election/Restrictions***

Claims 5, 6, and 8-53 are continued to be withdrawn from further consideration pursuant to 37 CFR 1.142(b) as being drawn to a nonelected species, there being no allowable generic or linking claim. Election was made **without** traverse in Paper No. 10.

### ***Drawings***

The proposed drawing correction and/or the proposed substitute sheets of drawings, filed on 3/4/03 has been approved. A proper drawing correction or corrected drawings are required in reply to the Office action to avoid abandonment of the application. The correction to the drawings will not be held in abeyance.

### ***Claim Objections***

Claims 1 and 7 are objected to because of the following informalities: "link" (claim 1, line 6) should be --ink--; "the like" (claim 7, line 2) lacks proper antecedent basis. What is the like? It is suggested that the phrase "or the like" should be deleted. Appropriate correction is required.

***Claim Rejections - 35 USC § 102***

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claim 1 is rejected under 35 U.S.C. 102(b) as being anticipated by Nakamura et al (JP 08-187868).

Nakamura et al discloses all features of the claimed recording head as follows:

- A pressure producing device (11)
- A plate-shaped member having a partition wall (3) defining a pressure chamber (4), and ink supply passage (5) and a common ink storage chamber (6)
- The plate-shaped member having a land (9) and an elastic and deformation portion surround the land (clearly illustrated in Figure 2)
- A nozzle plate (1) provided with a nozzle hole (2)
- The plate-shaped member having a first layer (the one forming 3), a second layer (the one forming 9), and an intermediate polymer layer (8)

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- Note: the processes recited in the claims are not further limit the apparatus because it does not further define any structure of the claimed apparatus.

***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 3, 4, 54 are rejected under 35 U.S.C. 103(a) as being unpatentable over Nakamura et al in view of Usui et al (US 6,158,847).

Nakamura et al discloses the basic limitations of the claimed invention as set forth above and further includes the followings:

- A first adhesive (21) layer bonding the second layer (9) and the intermediate layer (8) and the first layer being formed of stainless steel.

However, Nakamura et al does not disclose:

- A second adhesive layer bonding the first layer (3) and the intermediate layer (8) and the first layer being formed of stainless steel.

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Nevertheless, Usui et al discloses:

- An adhesive layer (7) bonding a stainless steel layer (1) forming a spacer like the first layer and the diaphragm (5).

It is noted that Nakamura et al's diaphragm (7) includes the intermediate layer (8) having a surface facing the first/spacer layer (3). Such surface is similar to the surface of Usui et al's diaphragm (5). It would have been obvious to one having ordinary skill in the art at the time the invention was made to include an adhesive layer between the first/spacer layer and the surface of the diaphragm facing the first/spacer layer as taught by Usui et al in the teaching of Nakamura et al for the purpose of bonding the diaphragm to the spacer layer.

Claim 7 is rejected under 35 U.S.C. 103(a) as being unpatentable over Nakamura et al in view of Okazawa et al (JP 06-023982).

Nakamura et al discloses all basic limitations of the claimed invention as set forth above except for followings:

- The plate-shaped member does not have any adhesive between the first, intermediate, and second layers.

However, Okazawa et al discloses:

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- The plate-shaped member does not have any adhesive between the first (6), intermediate (2), and second (5) layers (see Figure 7(b)).

It would have been obvious to one having ordinary skill in the art at the time the invention was made to have the plate-shaped member of Nakamura et al without adhesive between the three layers of the plate-shaped member as taught by Okazawa et al for the purpose of reducing the size of the recording head.

### ***Response to Arguments***

Applicant's arguments have been fully considered but they are not persuasive.

Applicant appears to argue that Nakamura et al does not teach the partition wall and the land being formed by a particular process such as etching the first layer and the second layers. However, product-by-process claims are not limited to the manipulations of the recited steps/processes, only the structure implied by the processes (MPEP 2113).

Applicant further appears to suggest that there are certain advantages that can be obtained by the present invention made by such processes that cannot be obtained by the disclosure of Nakamura et al. However, only the claimed product is limited, not the advantages obtained from the implied processes.

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Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Judy Nguyen whose telephone number is (703) 305-7062. The examiner can normally be reached on Monday - Friday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Ben Fuller can be reached on (703) 308-0079. The fax phone numbers for the organization where this application or proceeding is assigned are (703) 305-3431 for regular communications and (703) 305-3431 for After Final communications.



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Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 308-0956.

A handwritten signature in black ink, appearing to read "Judy Nguyen". The signature is fluid and cursive, with the first name "Judy" and last name "Nguyen" clearly distinguishable.

Judy Nguyen  
Primary Examiner  
May 17, 2003